

Interest Rate Swap and Variable Rate Debt Programs

Managing On-Going Responsibilities
California Debt and Investment Advisory Commission
April 20, 2007

Swap Financial Group

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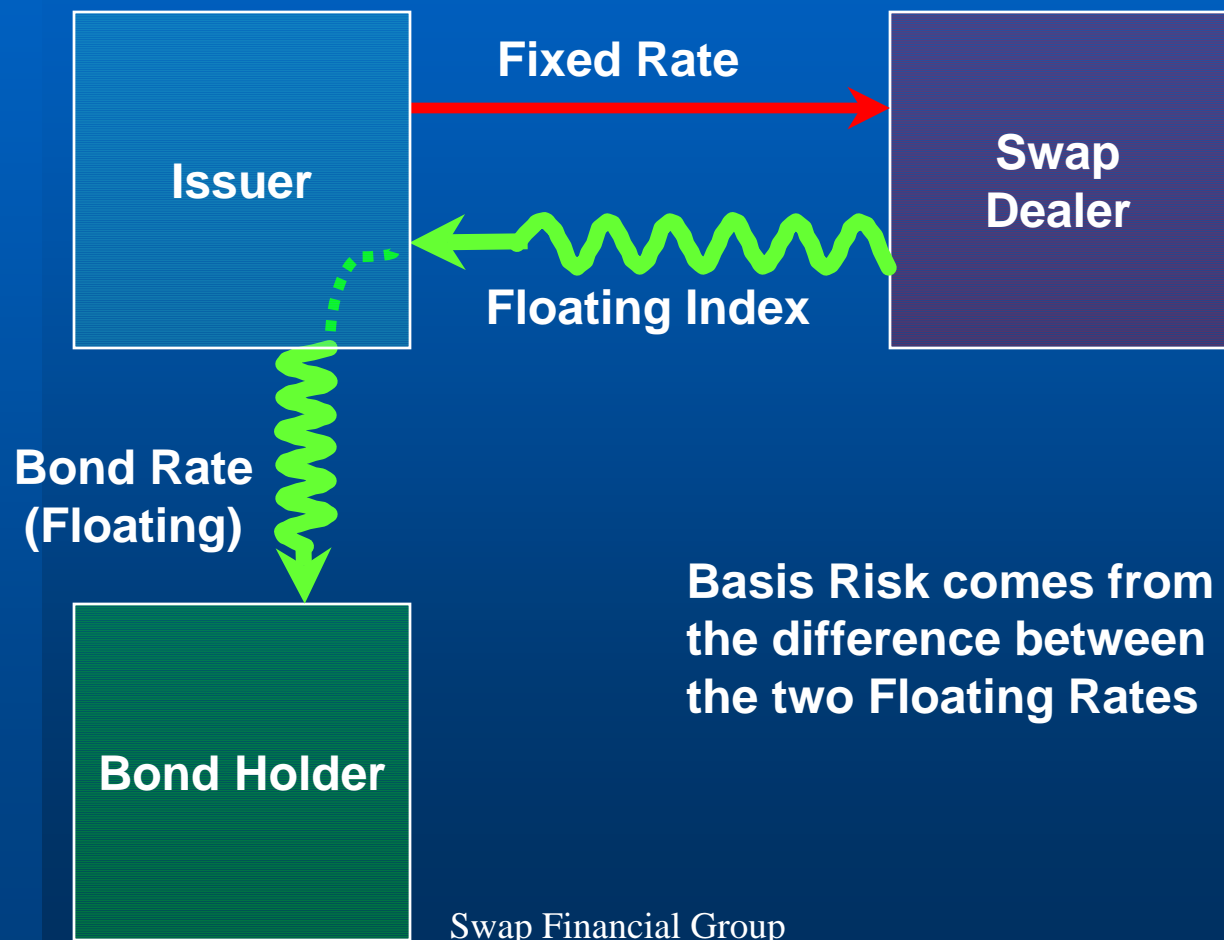
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Agenda

- What do you need to know to maintain a variable rate program?
- How do actual rates compare to market-wide indexes?
- What factors influence actual rates?
- How does the market value of a swap change over time?

Review of swap structure



Swap indexes

- The floating side of a swap is usually an index
- Two important floating indexes are:
 - **LIBOR** (London Interbank Offered Rate): Dominant index for taxable floating rates
 - **BMA** (Bond Market Association Municipal Swap Index): Dominant index for tax-exempt floating rates
- Indexes are never exactly equal to actual rates

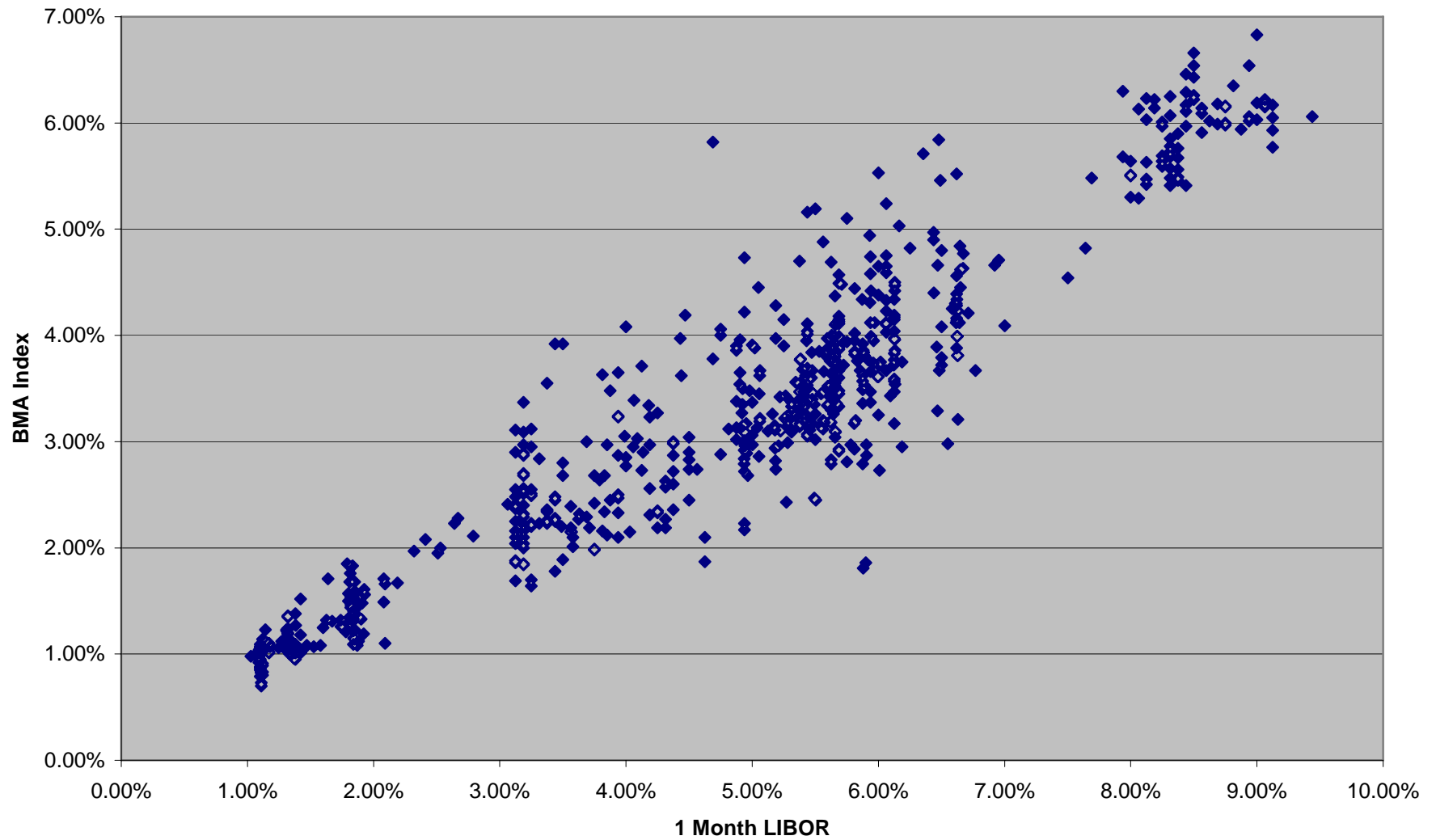
How does LIBOR work?

- **LIBOR is a rate, set once a day at 11 AM London Time by the British Bankers Association**
- **Every major currency**
- **Every short-term maturity (overnight to one year)**
- **Reflects short-term lending rates between highly creditworthy banks**

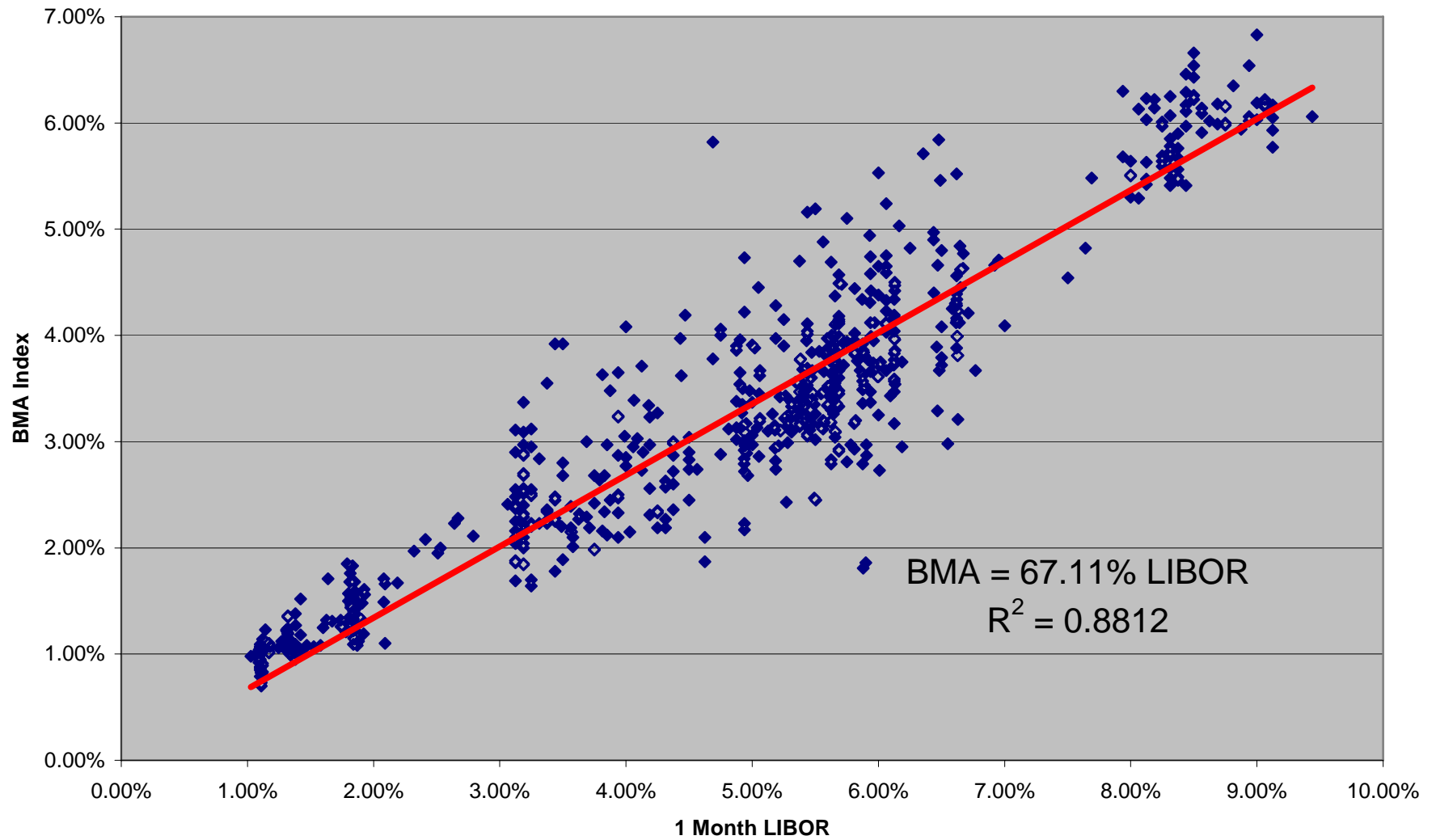
How does BMA work?

- BMA is a literal arithmetic average of actual tax-exempt VRDO programs
- Mathematically rigorous, determined once a week by MMD Inc.
- Reflects multiple remarketing agents, liquidity banks
- Only creditworthy programs

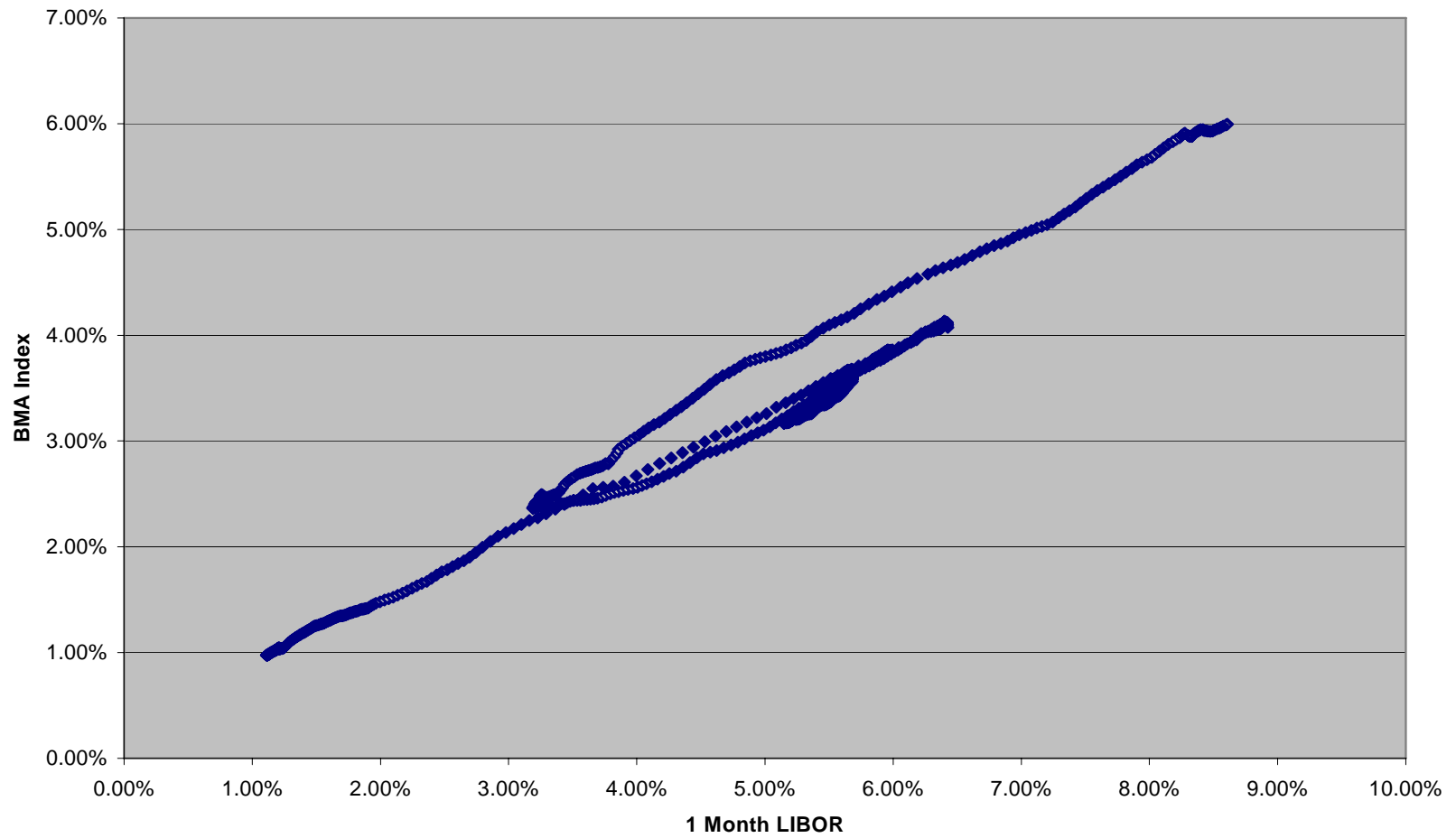
BMA vs LIBOR Since 1989



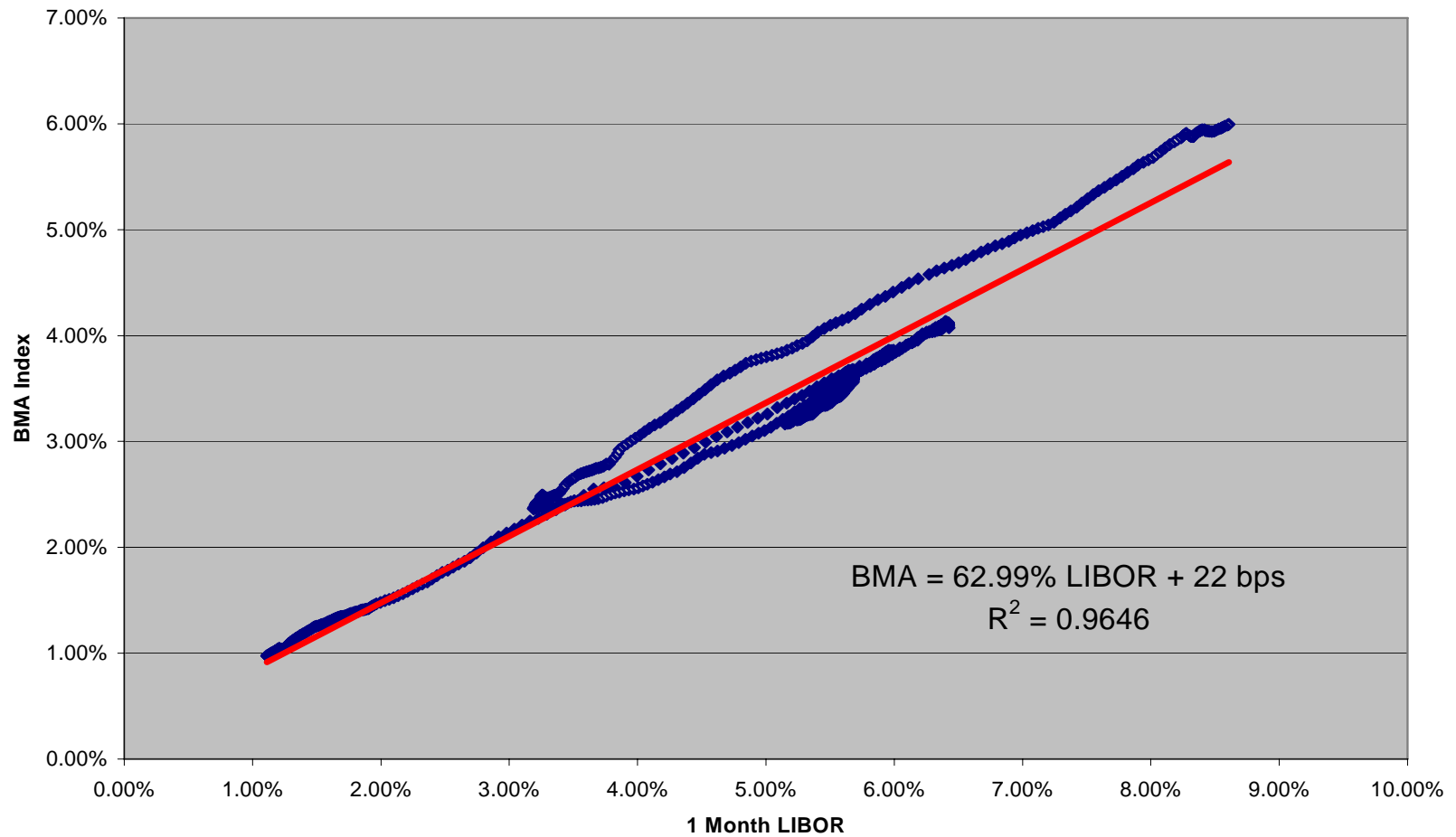
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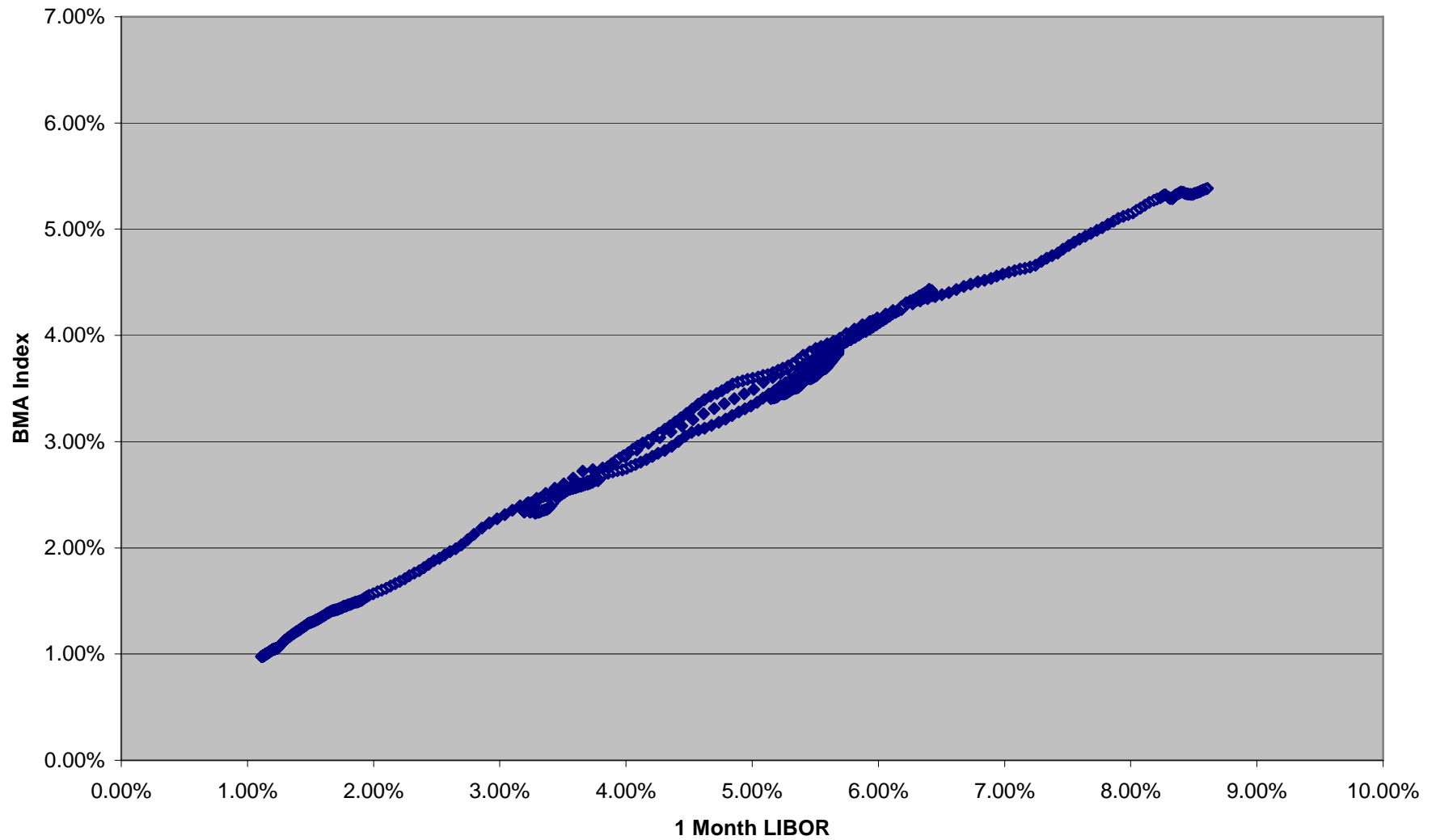
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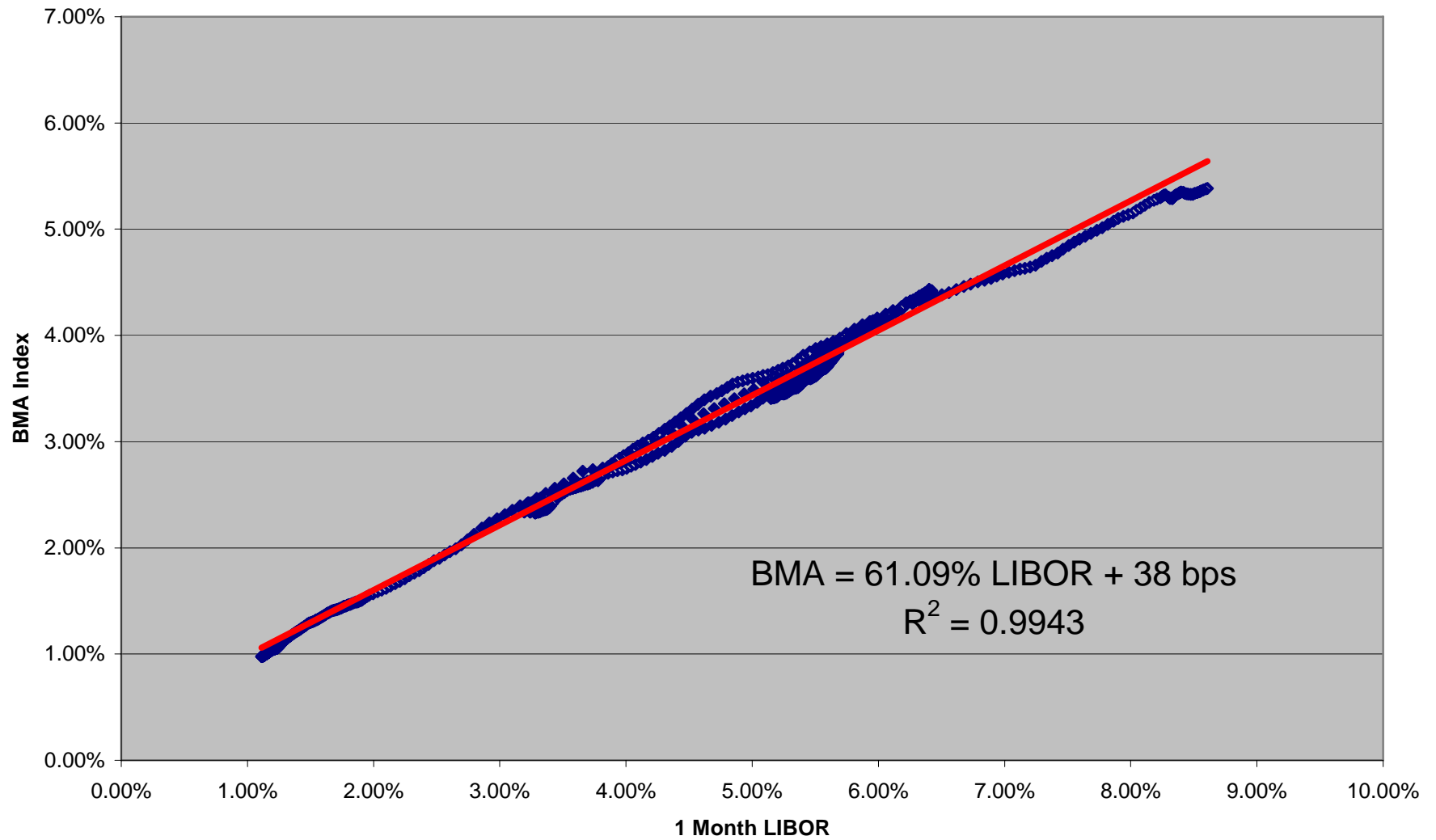
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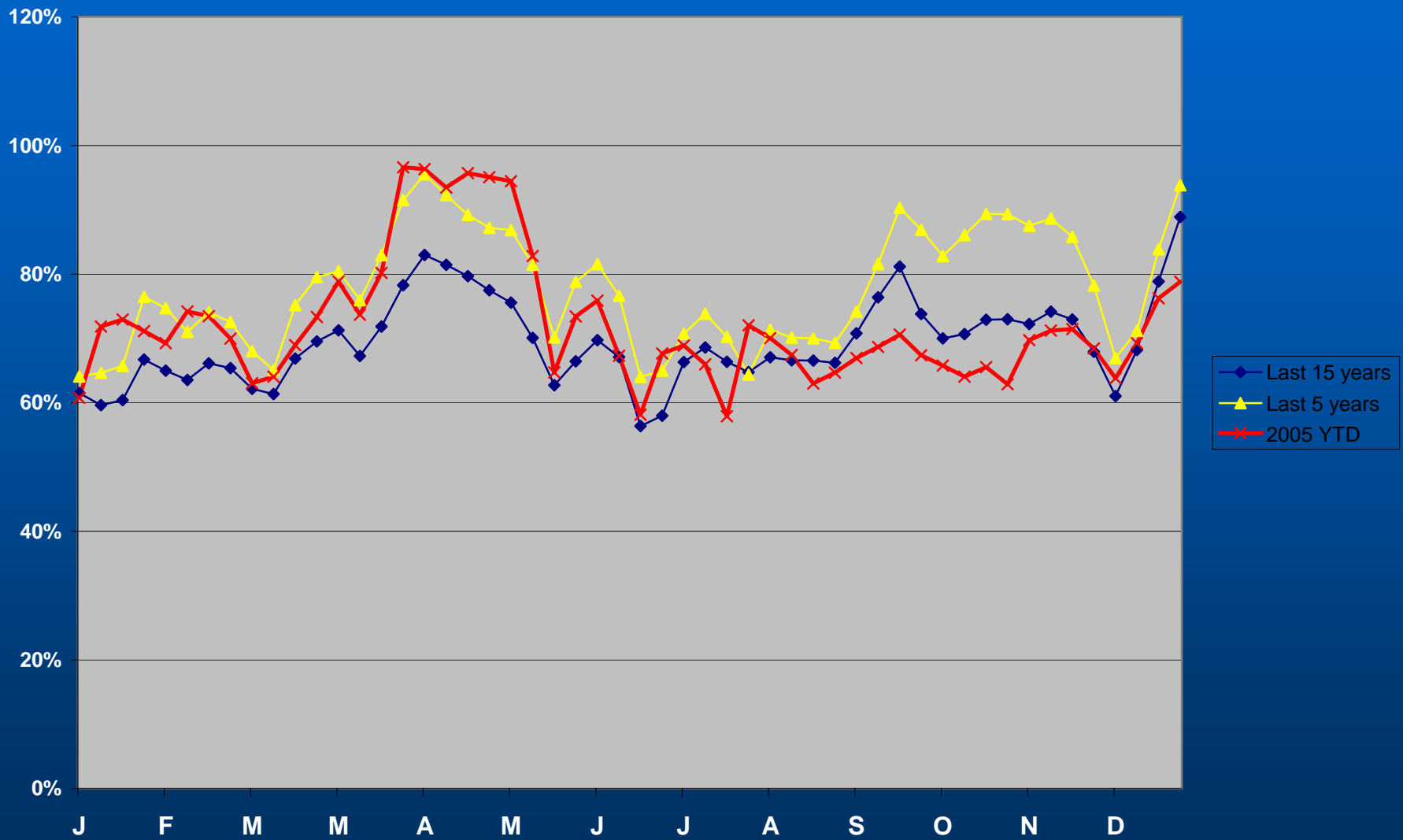
BMA vs LIBOR Since 1989



BMA vs LIBOR Since 1989



BMA as Percentage of LIBOR



Why would bonds vary from BMA?

- **California – “Specialty State”**

 - Double tax-exemption

 - Big base of dedicated investors

 - “The California Premium”

- **Daily VRDO’s**

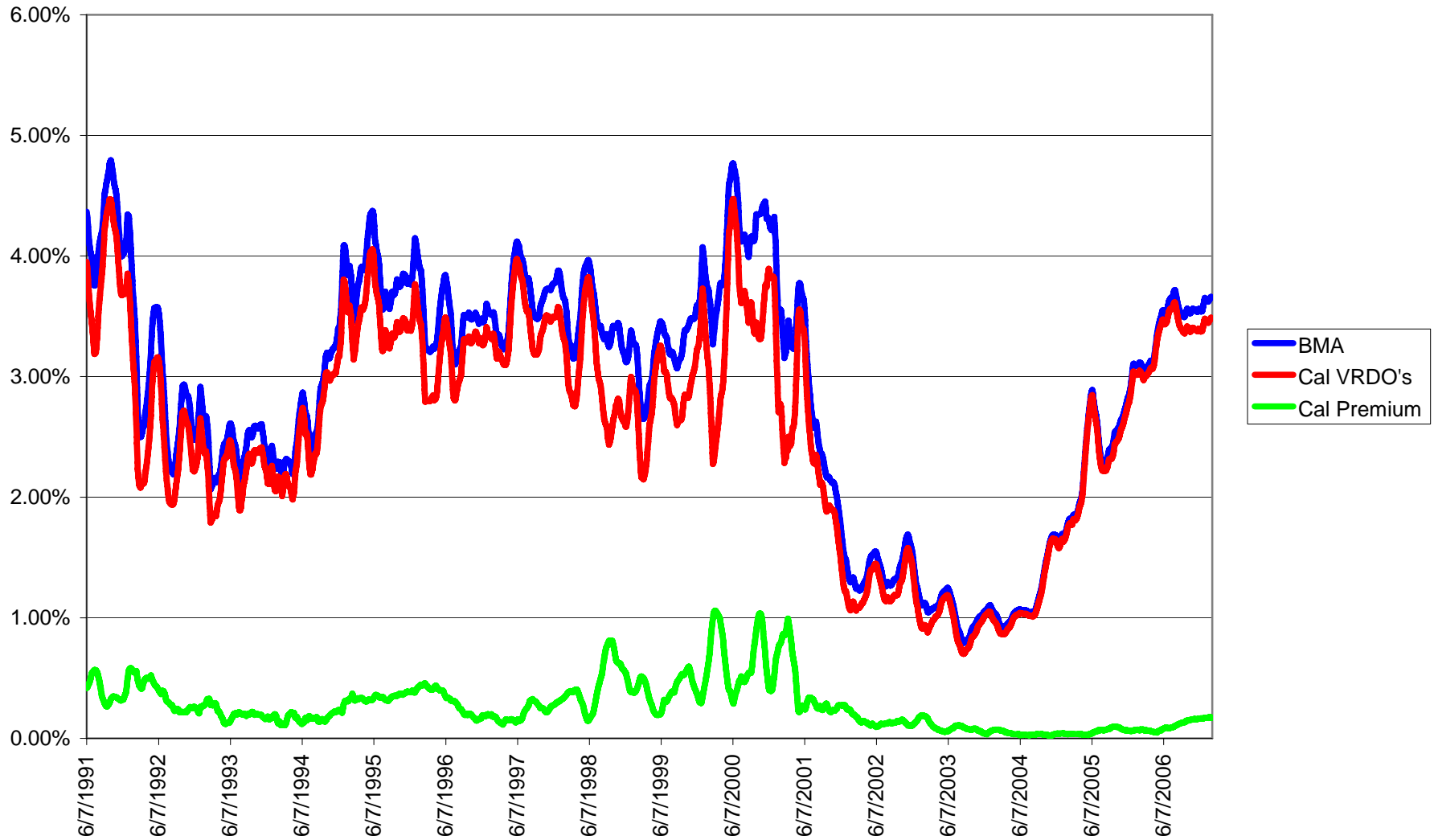
- **Auction Rate Securities**

 - Non-puttable

 - \$25,000 denomination attractive to high net worth

 - Market changed dramatically in 2003-2005

BMA vs Cal VRDO's Since 1991



How a swap changes in value

Like a fixed-rate bond, a swap changes in value over time

Swap value changes based on three factors:

Changes in interest rates

Remaining years to maturity

Amortization

Understanding valuation changes

- If you are a fixed-rate payer, if rates have risen, the value will be positive to you (and vice versa)
- Higher rates mean the swap provider would pay you to get out of the swap (he could find a higher-paying swap in the current market)
- GASB rules require you to provide information on the current value of your swaps
- New rules are expected in 2008 that will require more thorough reporting

